

What is claimed is:

1. A method for maintaining a desired shape of corneal tissues following an orthokeratological procedure, comprising the step of:
 - a. administering to a patient a stabilizing agent from a collagen composition chosen from fibril associated collagens with interrupted triple-helices ("FACIT"), and small leucine-rich repeat proteoglycans ("SLRP") whereby the stabilizing agent stabilizes the corneal tissues to maintain the desired shape.
2. The method of claim 1 wherein the stabilizing agent is applied to the corneal tissues of a patient.
3. The method of claim 1, wherein the stabilizing agent interacts with collagen fibrils to form bridges connecting the collagen fibrils.
4. The method of claim 3, wherein the stabilizing agent controls a fibril diameter of the cornea.
5. The method of claim 3, wherein the bridges are sufficiently flexible to allow fibril movement within a predetermined range.
6. The method of claim 1, wherein the FACITs are chosen from type VI, type XII, type XIV, type XX, and any combination thereof.
7. The method of claim 1, wherein the SLRPs are chosen from biglycan, decorin, epiphycan, keratocan, lumican, mimican, fibromodulin, and any combination thereof.
8. The method of claim 1, wherein the concentration of the stabilizing agent is within a range from about 40 µg/mL to about 100 µg/mL.
9. A method for maintaining a desired shape of corneal tissue following an orthokeratological procedure, comprising the step of:
 - a. administering to a patient a stabilizing agent from a protein derived transglutaminase whereby the stabilizing agent stabilizes the corneal tissue to maintain the desired shape.
10. The method of claim 9, wherein the stabilizing agent is applied to the corneal tissue of the patient.

11. A composition comprising at least one of:
 - a. fibril associated collagens with interrupted triple helices (FACITs); and
 - b. small leucine-rich repeat proteoglycans (SLRPs).
12. The composition of claim 11, wherein the FACITs are chosen from type VI, type XII, type XIV, type XX, and any combination thereof.
13. The composition of claim 11, wherein the SLRPs are chosen from biglycan, decorin, epiphycan, keratocan, lumican, mimican, fibromodulin, and any combination thereof.
14. The composition of claim 11, wherein the FACITs and SLRPs are dissolved in a physiologically compatible solution.
15. The composition of claim 14, wherein the FACITs and SLRPs are buffered to a physiologically compatible pH level.
16. The composition of claim 11, wherein the concentration of the composition is within a range from about 40 µg/mL to about 100 µg/mL.
17. A method for maintaining corneal curvature resulting from an orthokeratology procedure, comprising the steps of:
 - a. applying a composition to a cornea to stabilize the corneal curvature by reacting with collagen fibrils, the composition being applied in an absence of administration of a corneal softening agent; and
 - b. building bridges connecting the collagen fibrils in the cornea to constrain movement of the collagen fibrils.
18. The method of claim 17, wherein the composition is in a form of an eye-drop solution.
19. The method of claim 18, wherein the composition comprises at least one of:
 - a. fibril associated collagens with interrupted triple helices (FACITs); and
 - b. small leucine-rich repeat proteoglycans (SLRPs).

20. The method of claim 19, wherein the FACITs are chosen from type VI collagen, type XII collagen, type XIV collagen, type XX collagen, and any combination thereof.
21. The method of claim 19, wherein the SLRPs are chosen from biglycan, decorin, epiphycan, keratocan, lumican, mimican, fibromodulin, and any combination thereof.
22. A method of making a chemical composition, comprising the steps of:
 - a. dissolving at least one compound chosen from fibril associated collagens with interrupted triple helices (FACITs) and small leucine-rich repeat proteoglycans (SLRPs) in a physiologically compatible solution; and
 - b. buffering the solution to a physiologically compatible pH level.
23. The method of claim 22, wherein the concentration of the chemical composition is within a range from about 40 µg/mL to about 100 µg/mL for FACITs and SLRPs.
24. A method for making a chemical composition for application on a reshaped cornea resulting from an orthokeratology procedure, comprising the steps of:
 - a. preparing transglutaminase in a buffer solution;
 - b. mixing the solution and diluting in sterile water; and
 - c. adding calcium chloride.
25. An orthokeratological procedure to correct a patient's corneal curvature, comprising the steps of:
 - a. inserting an orthokeratological lens into a patient's eye to reshape unsoftened corneal tissue of the eye in a preselected shape dictated by the orthokeratological lens; and
 - b. applying a stabilizing agent to the patient's eye in order to stabilize the corneal tissue in the preselected area.
26. The procedure of claim 25, further comprising a step of removing the orthokeratological lens before applying the stabilizing agent.

27. The procedure of claim 26, further comprising the step of removing the orthokeratological lens after applying the stabilizing agent.
28. The procedure of claim 25, wherein the stabilizing agent is at least one compound chosen from transglutaminase, SLRPs, and FACITs.
29. An orthokeratological system, comprising:
 - a) an orthokeratological lens configured to be inserted into the patient's eye to reshape unsoftened corneal tissue into a preselected corneal shape dictated by the orthokeratological lens; and
 - b) a stabilizing agent to be administered into the patient's eye to stabilize the corneal tissue in the preselected shape.